Joint Simulation System (JSIMS)

Connectivity Procedure
Version 0.4

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1. Introduction

1.1 Joint Simulation System[1]

The Joint Simulation System (JSIMS) will be a core of common and joint representations and services, a run-time hardware and software infrastructure, and interfaces, that is augmented by the representations of Air/Space, Land, and Sea Warfare Functionality. The representations of Air/Space, Land, and Sea Warfare Functionality will be provided via sponsorship by Executive Agents. The primary focus of JSIMS at Initial Operational Capability (IOC) and Full Operational Capability (FOC) will be training. JSIMS will utilize authoritative representations of the environment (natural and man-made), systems, and behaviors to create a capabilities to create synthetic representations and interactions within the synthetic environment for training. The JSIMS infrastructure will interface with users via training systems and operational command, control, communications, computers and intelligence (C4I) systems.

JSIMS will support Unified Combatant Commands, Service, and Joint Task Force (JTF) training in all phases of military operations (i.e., mobilization, deployment, employment, sustainment, and redeployment activities) and operations other than war (OOTW). JSIMS will be employed by the combatant commands in configurations and modes relevant to the unique requirements of their respective theaters or missions. JSIMS will specifically support the training required by their Joint Mission Essential Task Lists.

JSIMS will provide a capability to simulate the actions and interactions of all entities (e.g., platforms, weapons, sensors, units, C4I systems, etc.) within a designated area of operations as influenced by the environment, system capability, and human and organizational behavior affecting the achievement of missions and objectives for that area of operations.

1.2 JSIMS Enterprise Team

The TRW JSIMS Integration and Development (I&D) Team consists of SAIC, Sparta, Inc., Aurora Simulation Inc., MATCOM2, AEgis Research Corp., and MRJ Inc. Each of these companies, along with numerous government organizations, comprise essential components of the JSIMS Enterprise.

1.3 JSIMS Enterprise Information Management System

The JSIMS Enterprise Information Management System (EIMS) will provide a complete tool set and active process control for program management and Enterprise-wide collaboration. As the various organizations involved in the JSIMS project pursue their work, communication will become more and more critical. The EIMS will provide the mechanisms for communications within and management of the efforts involving the disparate organizations that comprise the JSIMS Enterprise.

Figure 1 shows the architecture of the EIMS. Figure 2 breaks out the architecture into the client side and the server side.

[1] Excerpt from the JSIMS Operational Requirements Document, Joint Warfighting Center (HTTP://WWW.JSIMS.MIL), 15 September 1995.

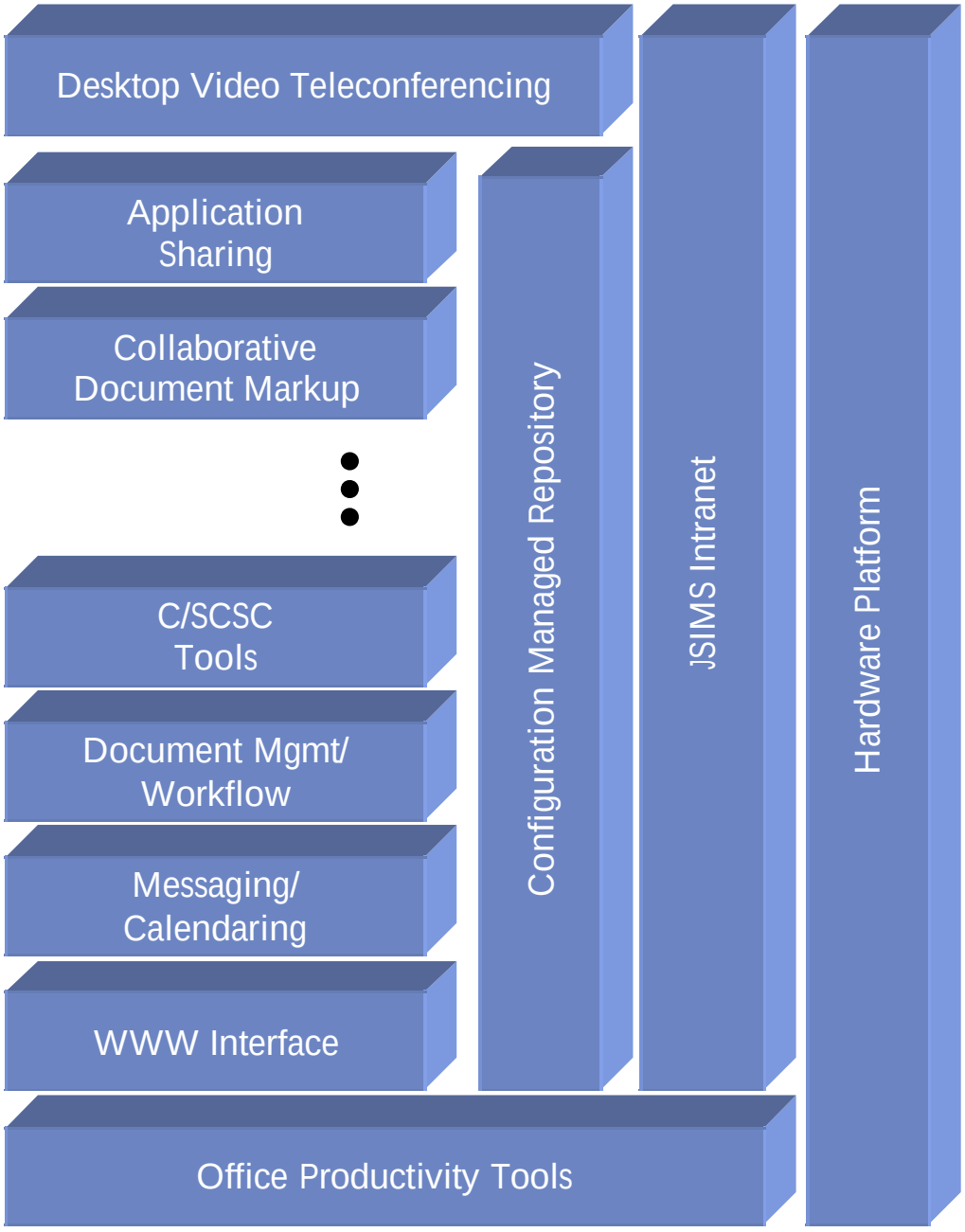

Figure 1. EIMS Architecture

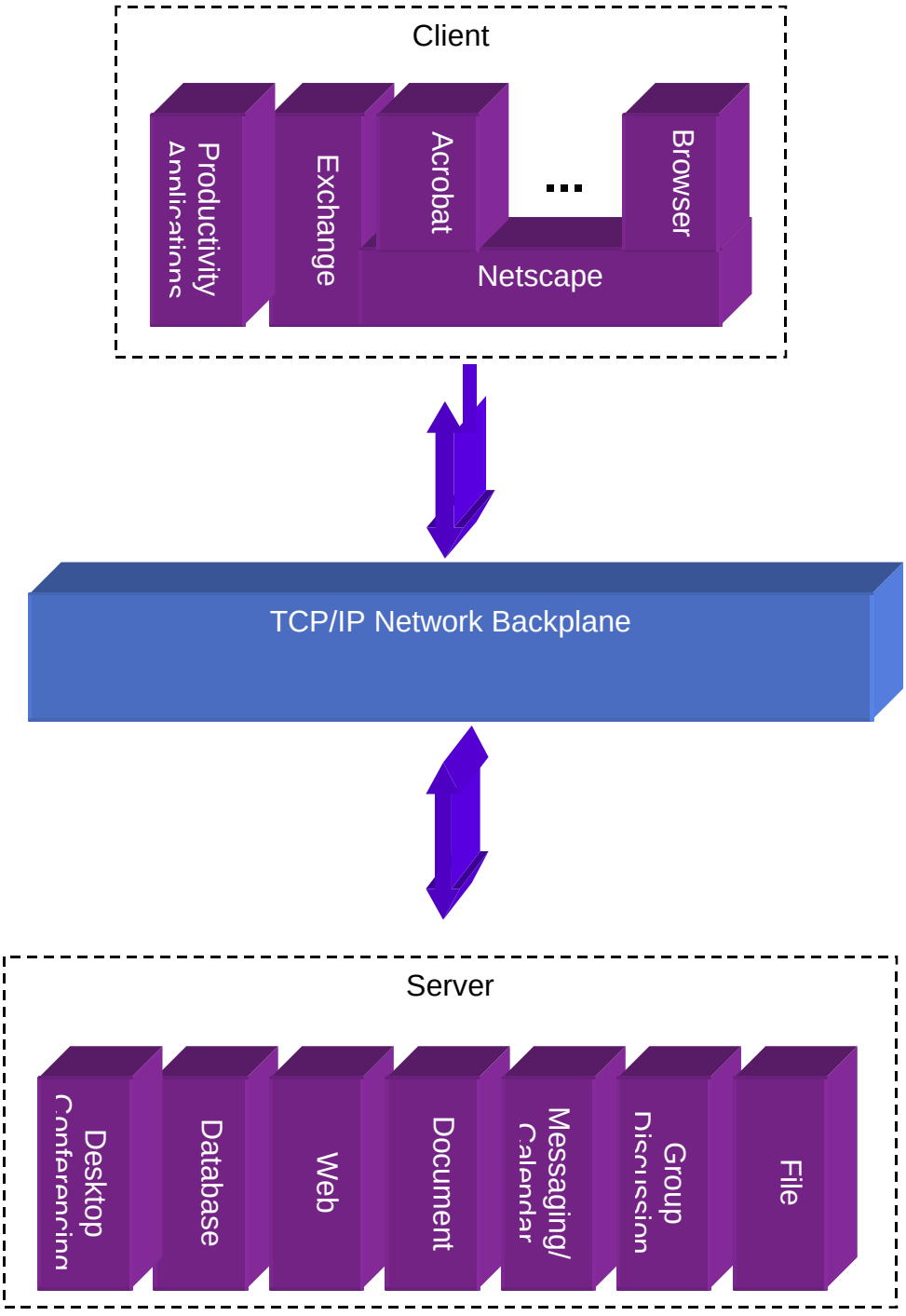

Figure 2. EIMS Client/Server Architecture

2. Procedure

To connect with the JSIMS Enterprise, a participant organization needs to do the following:

1. Fill out the “Request for Connectivity” Form (in Appendix A). The Point of Contact (POC) for Network Administration is important because this individual will be contacted for all matters concerning the communications interface to the requesting organization. The POC for Organizational Scheduling is important because this individual will be the single point of interface for coordinating schedule items with the requesting organization.

   All users from the requesting organization that require access must be listed on the 2nd page of the form – use as many pages as necessary. It is important to list the IP address of each individual requesting access because only registered IP addresses are allowed to access the EIMS servers.

   When the form is filled out, it should be FAXed to the Enterprise Connectivity Manager at phone number (407) 658 – 9760.

2. If Internet Access is desired, the requesting organization must arrange its own internet service.

3. If Dial-up ISDN Access is desired, the requesting organization must obtain its own ISDN service, and ISDN Modem(s).

4. If Dial-up POTS Access is desired, the requesting organization must obtain its own phone line(s) as well as Modem(s).

5. If Dedicated Access is desired, the requesting organization must obtain both the communications lines as well as the special hardware/software required on both ends of the connection (including potentially hardware to connect to the Intranet router). In addition, dedicated access connnectivity requires extensive communications with the I&D Intranet Team to ensure success.

Upon receipt of the Request for Connectivity, the I&D Intranet Manager will coordinate the request with the Joint Program Office, register the IP addresses of the requesting organization users, and create access usernames and passwords for the requesting organization users. Upon completion of these steps, the users will be contacted with the access information. At that point the requesting organization will be connected with/to the JSIMS Enterprise.

2.1 Priority

In the anticipation of possible resource contention in satisfying a multitude of requests, the following ordering will be followed in prioritizing requests:

1. DAs and DA Contractors
2. EAs
3. Other Requests

Appendix A

Forms

Request For Connectivity			
Date:			
Executive Agent:			
Development Agent:			
Organization Name:			
Organization Address	Physical:		Mailing:
Network Administration Point of Contact	Name:	Phone #	Email Address: IP Address:
Organization Scheduling Point of Contact	Name:	Phone #	Email Address: IP Address:
Service Required:	☐	Internet Access	
	☐	Dial-up ISDN Access	
	☐	Dial-up POTS Access	
	☐	Dedicated Access Speed:	

Request For Connectivity – Page 2			
Users needing Access	Name:	Phone #	Email Address: IP Address:
	Name:	Phone #	Email Address: IP Address:
	Name:	Phone #	Email Address: IP Address:
	Name:	Phone #	Email Address: IP Address:
	Name:	Phone #	Email Address: IP Address:
	Name:	Phone #	Email Address: IP Address:
	Name:	Phone #	Email Address: IP Address:
	Name:	Phone #	Email Address: IP Address:
	Name:	Phone #	Email Address: IP Address:
	Name:	Phone #	Email Address: IP Address:

Appendix B

Required Equipment

And

Sample Configurations

Required Equipment

B.1 Hardware

The hardware required to connect with the JSIMS Intranet is a Personal Computer that will run the Operatign System Software, the Applications Software, and which includes a form of networking connection.

B.1.1 Lan Networking

This form of networking requires a Network Interface Controller (NIC) be installed in the personal computer that is compatible with the requesting organization's premises cabling plan. It also requires a gateway to the Internet, or to a dedicated communications link to the JSIMS Intranet.

B.1.2 Dial-up POTS Networking

In order to support a dial-up networking connection, an analog modem is required.

B.1.3 Dial-up ISDN Networking

In order to support dial-up ISDN networking, an ISDN modem is required.

B.2 OS Software

The operating system software required to connect to/with the JSIMS Intranet is that which runs the Applications Software (Windows 95 or Windows NT are recommended).

B.3 Applications

The basic applications that are required to connect to/with the JSIMS Intranet are:

- A Web Browser (Netscape Navigator or Internet Explorer are recommended)

The basic applications that are required to interchange data to/with the JSIMS Intranet are:

- An Acrobat Reader Plug-in for the Browser
- A Suite capable of reading/writing Microsoft Office 95 (with Powerpoint 4) files (Office '97 is recommended)

B.4 Desktop Video Teleconferencing (DVTC)

If DVTC capability is required, then the hardware/software that implements H.320 compliant video teleconferencing must be added to the personal computer shown above. (C-phone and ProShare are recommended).

B.5 Document Conferencing

If Document Conferencing capability is required, then the software that implements T.120 compliant client document conferencing must be added to the personal computer shown above. (FarSite is recommended).

B.6 Sample Configurations

The configuration(s) included in this appendix have been tested and are in use on the JSIMS Intranet. They have been included as a starting point for requesting organizations in the case new hardware/software needs to be procured.

I&D Sample Configuration				
Capability	Product			
	Part Name	Part Number	Qty	Dealer
Personal Computer	5133 GXIM	220-0301	1	DELL
	MS Mouse	310-0019	1	DELL
	Win95 Keyboard	310-1234	1	DELL
	32MB DIMM EDO	311-0195	1	DELL
	256KB Cache	311-0203	1	DELL
	8X IDE CD-ROM	313-0126	1	DELL
	2GB IDE Disk	340-0077	1	DELL
	1.44MB Floopy	340-0251	1	DELL
	Windows 95	420-0118	1	DELL
	TX Ethernet	430-0026	1	DELL
	3 yr LTD Warranty	900-9000	1	DELL
	MS Office Pro 97	412-0035	1	DELL
	17LS Monitor	320-3575	1	DELL
	Norton Antivirus	752362	1	DELL
	Netscape PE Gold	914557	1	DELL
Document Conferencing Client	FarSite	FarSite V3.0	1	Databeam
DVTC Building Block – 4 PCs with Multi-point Capability	C-Phone Kit	CP1000	4	C-Phone
	WAN Server	CP100WSU	1	C-Phone
	WAN Access Kit	CP100CPS	1	C-Phone
	CODEC – 128Kbps	CPC128M	3	C-Phone
	BRI-2	CPBRI2U	3	C-Phone
	MCU	CP100MCU6	1	C-Phone
	External Speaker	CP2018A	4	Coherent
	Video Card	GXE64	4	#9 Video
DVTC – Single PC	ProShare 200	TBD	1	Intel
ISDN Dial-up	Personal Computer – See Above		1	
	ISDN Modem	Impact IQ ISDN	1	3COM
POTS Dial-up	Personal Computer – See Above		1	
	33.6Kbps Modem	Sporster	1	US Robotics
Dedicated Access 56Kbps	TBD			
Dedicated Access 128Kbps	TBD			
Dedicated Access T1 – 1.5Mbps	TBD			